

Listing of Claims

1-21. (Canceled)

22. (Amended) A method for controlling a cargo security system, the method comprising:

providing an electronic control unit capable of performing at least one activity and monitoring at least one function, wherein the electronic control unit includes a main power source;

providing a battery backup to power the electronic control unit if the main power source is not available; A method as defined in claim 16, in which a supply voltage is selected to extend the operational time of the back up battery, the method further comprising:

measuring a the main power source continuously to determine that whether it has enough power to supply the security system electrical control unit; and

forcing the system electrical control unit to use the main power source if available, even though the back up power source has a higher voltage.

23. (Amended) A method for controlling a cargo security system, the method comprising:

providing an electronic control unit capable of performing at least one activity and monitoring at least one function, and having a software control program for controlling its activities;

communicating with a remote computer terminal using a unique serial protocol;

providing a program in said remote computer terminal using communication protocol to adjust security system settings;

providing a battery backup to operate the security system if an external power source is not available, wherein A method as defined in claim 16, in which the back up

battery is trickle charged from the main power source to prolong its uninterrupted operation, the method comprising:

measuring voltage of both batteries continuously;

connecting both batteries together and allowing the charging current to flow, if the main battery voltage is sufficiently higher;

protecting the charging circuit from overheating, by turning the charging current periodically on and off if there is a substantial voltage difference between both batteries.

24. (Amended) A method for controlling a cargo security system, the method comprising:

providing an electronic control unit capable of performing at least one activity and monitoring at least one function; A method as defined in claim 16, including the steps of measuring temperature and supply voltage at the electrical control unit; and increasing a control pulse duration of the electrical control unit in response to low temperature or voltages.

25. (Amended) A method as defined in claim 16 24, including the step of triggering an alarm condition in response to rapid temperature or voltage changes.

26. (Amended) A method for controlling a cargo security system, the method comprising:

A method as defined in claim 6, including the steps of providing a security device latch;
providing an electronic control unit capable of performing at least one activity and monitoring at least one function including controlling movement of the security device latch, and

providing one of a short reverse pulse and a high impedance to stop security device latch movement at a desired position.

27-30. (Cancelled)

Add claims 31-40

31. (New) The method of claim 22, further comprising:

providing a remote computer terminal that uses a unique serial protocol to communicate with the electronic control unit;

providing a program in the remote computer terminal to adjust at least one setting of the electronic control unit.

32. (New) The method of claim 24, further comprising

providing a remote computer terminal that uses a unique serial protocol to communicate with the electronic control unit;

providing a program in the remote computer terminal to adjust at least one setting of the electronic control unit.

33. (New) The method of claim 26, further comprising:

providing a remote computer terminal that uses a unique serial protocol to communicate with the electronic control unit;

providing a program in the remote computer terminal to adjust at least one setting of the electronic control unit.

34. (New) A cargo security system, comprising:

a latch;

an electronic control unit that controls movement of the latch and is adapted to receive power from at least two power supplies; and

a power management unit that selectively controls which of the at least two power supplies provides power to the electronic control unit.

35. (New) The cargo security system of claim 34, wherein the at least two power supplies include a first power supply and a second power supply.

36. (New) The cargo security system of claim 35, wherein the power management unit monitors the power supplies, allows the first power supply charge the

second power supply if the first power supply has a sufficiently higher voltage than the second power supply, and if there is a substantial voltage difference between both batteries, only allows the first power supply to charge the second power supply at periodic intervals.

37. (New) The cargo security system of claim 35, wherein the first power supply and the second power supply are each taken from a group consisting of: an alternator, a battery, an AC voltage source, and solar panels.

38. (New) The cargo security system of claim 35, wherein the power management unit monitors the at least two power supplies, and if the first power supply drops below a predetermined level, causes the electronic control unit to receive power from the second power source.

39 (New) The cargo security system of claim 35, wherein the power management unit monitors voltage levels of the at least two power supplies, and forces the electronic control unit to receive power from the first power supply even if the voltage of the second power supply exceeds the voltage of the first power supply.

40. (New) The cargo security system of claim 34, wherein the power management unit monitors voltage levels of the at least two power supplies, and if the at least two power supplies do not have sufficient power to allow the electronic control unit to move the latch from a first position to a second position, the power management unit transmits a signal to the electronic control unit, which causes an alarm to ring.